

CLAIMS

1 A method of making a parison for forming a medical device balloon, the
method comprising extruding a tube of polymeric material to form the tube, wherein the
extrusion is controlled to provide the extruded tube with an elongation at break which is
5 not more than 80% of the elongation at break of the bulk polymeric material.

2 A method as in claim 1 wherein the elongation at break of the extruded
tube is not more than about 70% of the elongation at break of the bulk polymeric
material.

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3. A method of making a parison for forming a medical device balloon, the
method comprising extruding a tube of polymeric material to form the tube, the
extrusion having a draw down ratio of about 8 or higher.

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4. A method of making a parison for forming a medical device balloon, the
method comprising extruding a tube of polymeric material from an extruder having a
barrel where the mixture is kept in molten state at a barrel temperature and a die zone
where the molten material is pushed through a die to form the tube, wherein the die zone
is kept at a temperature at least 5°F below the barrel temperature.

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5. A method as in claim 4 wherein said die zone temperature is 10-40°F
below the barrel temperature.

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6. A method as in claim 4 wherein said die zone temperature is 20-30°F
below the barrel temperature.

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7. A tubular parison for forming a medical device balloon, the parison being
formed of a polymeric material, the parison having an elongation at break which is not
more than 80% of the elongation at break of the bulk polymeric material.

8. A tubular parison as in claim 7, wherein the elongation at break of the
extruded tube is not more than about 70% of the elongation at break of the bulk
polymeric material.

9. A medical device balloon formed from a parison as in claim 7.
10. A medical device balloon as in claim 9 wherein the polymeric material
5 comprises a polyamide/polyether/polyester, a polyester/polyether block copolymer, a
polyurethane block copolymer or a mixture thereof.
11. A medical device balloon as in claim 10 wherein the polymeric material
is a polyamide/polyether/polyester.
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12. A medical device balloon as in claim 9 formed with a single layer of said
polymeric material.
13. A medical device balloon as in claim 9 comprising of a plurality of layers
15 of said polymeric material.
14. A medical device comprising a balloon as in claim 9 mounted on a
catheter.
- 20 15. A medical device as in claim 14 further comprising a stent mounted on
the catheter.
16. A medical device balloon formed of a thermoplastic elastomer polymeric
material and having a tensile wall strength in excess of 34,000 psi in pre-sterilized
25 condition.
17. A medical device balloon as in claim 16 wherein said tensile wall
strength in excess of 37,000 psi in pre-sterilized condition.
- 30 18. A medical device balloon as in claim 16 wherein the polymeric material
comprises a polyamide/polyether/polyester, a polyester/polyether block copolymer, a
polyurethane block copolymer or a mixture thereof.

19. A medical device balloon as in claim 16 wherein the polymeric material is a polyamide/polyether/polyester.

20. A medical device balloon as in claim 16 formed with a single layer of
5 said polymeric material.

21. A medical device balloon as in claim 16 comprising of a plurality of layers of said polymeric material.

10 22. A medical device comprising a balloon as in claim 16 mounted on a catheter.

23. A medical device as in claim 22 further comprising a stent mounted on the catheter.
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24. A medical device balloon formed of a thermoplastic elastomer polymeric material and having a tensile wall strength, in post-sterilized condition, of 32,000 psi or more.